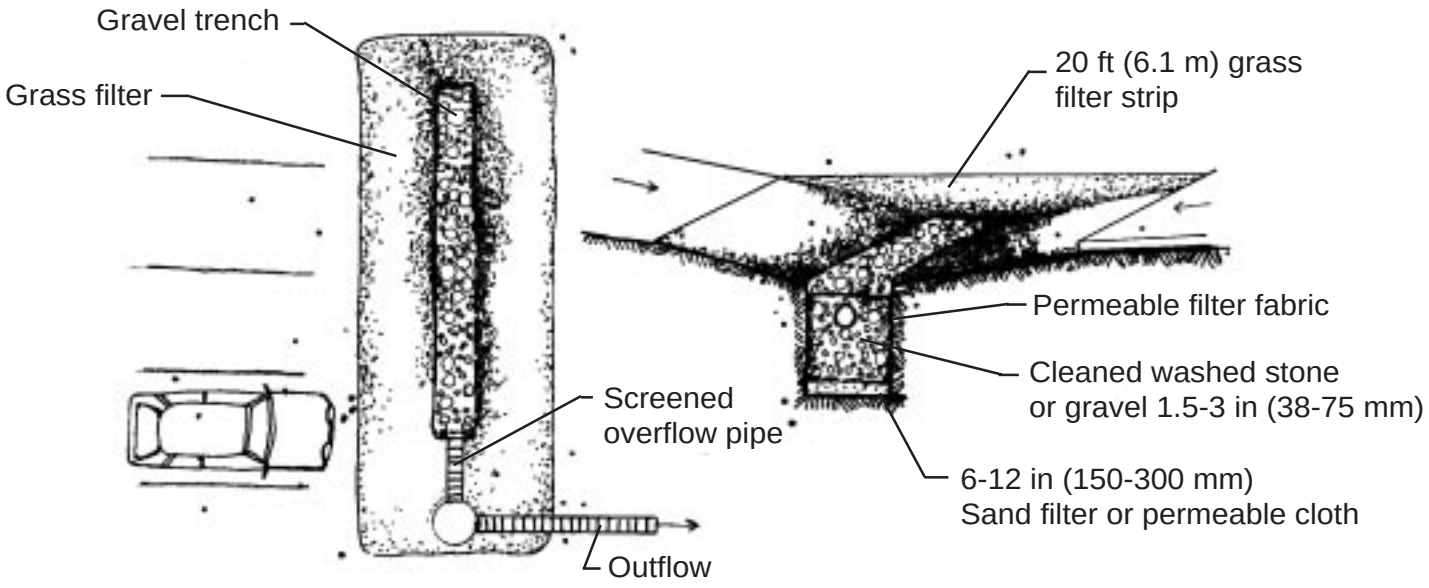
PRIMARY USE: For the treatment of stormwater runoff from parking lot islands and highway median strips.
ADDITIONAL USES: Also suitable for treatment of stormwater runoff in small sites and infill development.

MEDIAN STRIP INFILTRATION TRENCH

What is it? The median strip infiltration trench uses a grass filter strip to accommodate sheet flow to a shallow trench which allows treated water to percolate into underlying soils.

Purpose

These trenches can be an effective means of removing particulate and soluble pollutants. They are one of the few BMPs providing pollutant removal on smaller sites or infill developments. Trenches can be easily installed in underutilized perimeters of sites. Depending on the amount of exfiltration and storage, groundwater recharge can be benefited, as well as augmentation of low flows, and streambank erosion control. Infiltration trenches can potentially reproduce hydrologic conditions for given sites to near pre-development levels.



Median Strip Trench Drain

Limitations

Individual trenches are primarily an on-site control, and usually not economical or practical for sites larger than 5-10 acres (2-4 hectares). Permeable soils and location of bedrock and water tables must be well below trench bottoms.

Materials

Perforated PVC pipe, clean and washed gravel or stone, sand, grass, and filter fabric.

Installation

Trenches must be kept free of sediment build-up. Therefore, careful construction to avoid soil in the filtration media is critically important, as is the installation of the grass filter strip. Strip slopes should be no greater than 5%. Swales should be installed on each side of the strip to create a shallow depression to temporarily store runoff before it enters the trench.

Source: NRCS Planning and Design Manual, NRCS.